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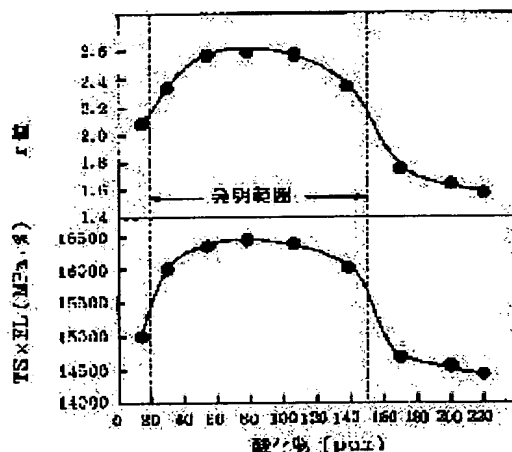
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(54) STEEL SHEET FOR DEEP DRAWING, EXCELLENT IN SURFACE CHARACTERISTIC, AND ITS MANUFACTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a steel sheet excellent in surface characteristic, formability and deep drawability, and its manufacture.

SOLUTION: The steel sheet contains, by weight, $\leq 0.010\%$ C, $\leq 1.0\%$ Si, $\leq 3.0\%$ Mn, $\leq 0.15\%$ P, $\leq 0.05\%$ S, $< 0.01\%$ Al, $\leq 0.01\%$ N, $\geq 0.015\%$ Ti, and $\geq 0.0005\%$ Ca and/or metallic REM and also contains 0.01-0.1 wt.% of non-oxide Ti (Ti*) and contains Al in an amount satisfying (1) wt.%Ti/wt.%Al ≥ 5 or (2) Al ≤ 0.010 wt.% and wt.% Ti/wt.%Al < 5 . At the time of its manufacture, a slab is heated and soaked at 900 to 1,300°C, finish rolling is finished at 650 to 960°C, coiling is done at 400 to 750°C, cold rolling is carried out at 50 to 95% draft, and the resultant sheet is subjected to recrystallization annealing at 700 to 920°C.



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